



Discover LLNL

TRACY EDITION

HIGHLIGHTING SITE 300

The Community Newsletter of Lawrence Livermore National Laboratory • Tracy Edition • Spring 2007

Editor's Note: Welcome to the inaugural edition of "Discover LLNL - Tracy Edition." This is the first in a series of quarterly issues to inform Tracy residents and other members of the community of the latest scientific research, news and people at Lawrence Livermore National Laboratory and Site 300.

What is Site 300?

Located in the foothills on 7,000 acres six miles southwest of downtown Tracy, Site 300 was established in 1955 as a non-nuclear explosives test facility to support Livermore Laboratory's national security mission. It is operated by the University of California for the U.S. Department of Energy's National Nuclear Security Administration.

Work at Site 300 supports the Laboratory's nuclear weapons program by assessing the operation of non-nuclear weapon components using hydrodynamic testing and advanced diagnostics such as high-speed optics and X-ray radiography. These efforts support the nation's Stockpile Stewardship Program, which is designed to ensure the safety, security and reliability of the U.S. nuclear weapons stockpile.

Site 300 employs nearly 200 people, with expertise in such fields as engineering, chemistry, biology and environmental restoration. In addition to its scientific staff, the site also has a fire department, security force, and admin-



Site 300 is home to a rare and endangered plant, the *Amsinckia grandiflora*.

With its rural setting and unique technical capabilities, Site 300 plays a pivotal role in Lawrence Livermore National Laboratory's national security mission.

Administrative and facility support personnel.

Throughout its more than 50 years of operation, Site 300 has maintained a stellar safety and security record. All employees and contractors requiring access to the site must undergo site-specific safety training. Site security is maintained by stringent access controls, including armed security personnel.

Site 300 constructed a contained firing facility in 2000 to help minimize offsite impacts, such as minor blast pressure and noise to neighbors and debris to the local on-site environment, from explosives testing. This concrete reinforced, 28,000-square-foot facility allows the Laboratory to conduct explosives tests indoors. On days when outdoor tests are planned, Site 300 monitors the atmosphere to determine when conditions are best for minimal sound travel.

Site 300 has unique environmental qualities. It is home to a large plant and wildlife population, including rare and endangered plants such as *Amsinckia grandiflora*. Noted wildlife includes the Alameda whipsnake and California tiger salamander, California



LLNL's Site 300 is an experimental test site situated in the rural foothills approximately six miles southwest of downtown Tracy.

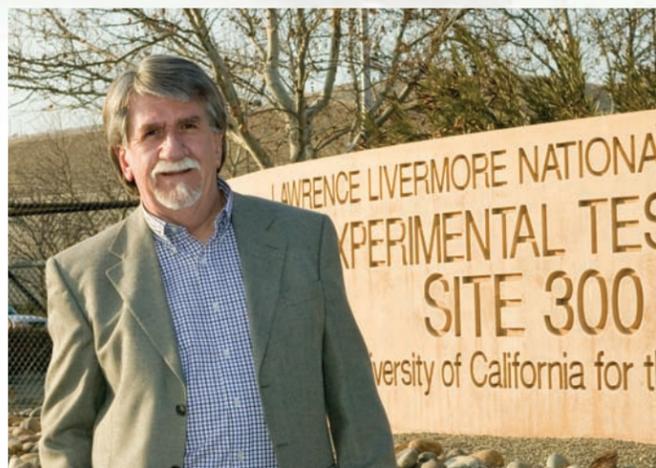
red-legged frog, raptors such as the golden eagle and the red-tailed hawk, and many varieties of small birds. Access to these unique populations is controlled, and site operations have successfully co-existed with them for more than 50 years.

Environmental stewardship at Site 300 also involves the careful restoration of portions of the site contaminated by past releases of chemicals from various early program activities. For more than a decade, significant progress has been made to clean up contaminated soil and ground water with no adverse impacts on the surrounding environment. ■

For more information about Site 300, go to the Web at <http://www.llnl.gov/site300/>

Meet Jim Lane

You might say that Jim Lane is a “home-grown” manager. A Livermore resident, he brings some 40 years of varied Laboratory experience to the Site 300 manager position he



Site 300 manager Jim Lane

has held since 2005. Lane was the Site 300 Business Manager for a number of years and most recently served 12 years as the Site's Deputy Manager.

Much of Lane's expertise has been acquired through his work at LLNL – both at the main site in Livermore and at Site 300, as well as through professional management courses offered by the Lab.

Lane is involved in every aspect of managing Site 300, ensuring that all safety, security, health and environmental programs and procedures are in place and verifying compliance. In addition, he ensures consistency and compatibility of performing all day-to-

day operations at the experimental test facility.

“What we do here is very important to the mission of the Laboratory,” Lane explains. “Through the non-nuclear explosives tests conducted at Site 300, Lab physicists are able to complete a critical portion of their work by validating computer codes. Our ability to gather data from these tests is unmatched elsewhere in the Department of Energy complex.”

Lane states that Site 300 personnel are qualified, trained workers who support the program. Their competence endorses this fact: There have been no injuries at the site as a result of explosives testing since its inception in 1955.

The site strives to be a good neighbor. “We pay a lot of attention to sound,” Lane says. Before any test, the site sends up weather balloons to measure temperature, wind velocity and direction and barometric pressure. This data is analyzed to determine if noise will impact the City of Tracy, including the Tracy Hills Development area, which is closest to the site. If

noise is above a self-imposed Laboratory noise threshold, test operations will not proceed.

Lane is pleased with the mutual aid agreement that Site 300 maintains with Tracy. “We have a fire department available 24 hours a day, equipped with paramedics who are certified in advanced life support. If there is a fire in the hills or a car accident on Corral Hollow Road, we get called. We are the first responders.”

Lane has many hobbies. He enjoys art, especially pencil drawing and watercolors, photography, gardening, home improvement projects, building and refinishing furniture, and bicycle riding.

“I am proud to be a part of the Site 300 team. The staff makes up a small, tight-knit community that works well together in a busy environment,” he says. “And, because of the nature of the work, I can look across the whole spectrum of the Lab's mission.” ■

For more information about Site 300, go to the Web at <http://www.llnl.gov/site300/>

University of California competes for new Bio and Agro-Defense Facility

The U.S. Department of Homeland Security (DHS) has announced plans to construct a new national facility to research and develop solutions to human, animal and zoonotic (infecting both animals and people) diseases. DHS is calling this proposed center the National Bio and Agro-defense Facility, or NBAF. NBAF will provide the nation with integrated research and response capabilities to protect public and animal health and enhance the nation's biodefense. DHS has yet to specify research details for NBAF. It is anticipated that cattle, swine, sheep and other hoofed animals will be the principal focus of research.

As proposed, NBAF will be approximately 500,000 square feet in size and encompass approximately 30 acres. It will employ upward of 300 scientists,

researchers and support personnel. The facility will include Biosafety Level (BSL) 3 and BSL 4 laboratories (Biosafety levels indicate the materials used in experiments and their required safety level), as well as business and administrative offices.

In March 2006, the University of California (UC), along with 28 other interested organizations, submitted formal “Expressions of Interest” to DHS. In August 2006, DHS reduced the list to 14 proposals, including UC. These proposals have advanced to the next phase of the competitive process. DHS is expected to announce a “short list” of candidates in June. The public will be able to provide comments through the National Environmental Policy Act (NEPA) process, which will begin after the short-list is announced. Final selection will likely be made by DHS in the 2008 time frame. ■

For further information about the DHS NBAF, go to the Web at http://www.dhs.gov/xres/labs/editorial_0762.shtm. For more information on UC's bid, go to the Web at <http://www.universityofcalifornia.edu/nbaf/>.

Environmental Stewardship

Site 300 has an extensive environmental cleanup and restoration program, one that has seen significant progress over the years.

Contamination was discovered at the Site in 1981 when solvents were detected in onsite ground water. Following this discovery, LLNL conducted an extensive investigation to evaluate where and what types of contaminants had been released.

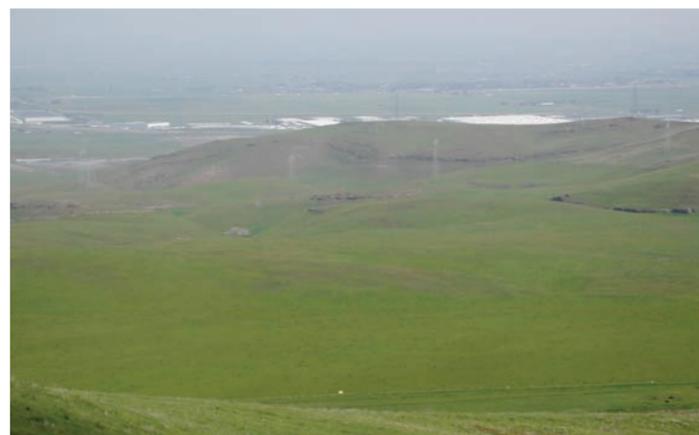
Cleanup activities began in the 1980s, and in 1990 the Site was added to the Superfund list. More than 20 treatment systems have been installed and operated to clean up contaminated ground water and soil; contaminated soil has been removed; and landfills, burn pits and wastewater lagoons have been closed and capped.

There has been concern recently expressed by some members of the public about the uranium and tritium in ground water from the Pit 7 Complex landfills. Ground water contamination from Site 300 (including the Pit 7 Complex) does not extend offsite to any water-supply wells, the City of Tracy, or the proposed Tracy Hills development. Contamination in soil, bedrock and surface water is confined to Site 300 property. Therefore, there is no hazard

to the health of residents near the site or neighboring communities.

LLNL established and implemented a comprehensive restoration program for Site 300 to clean up contamination resulting from past operations. This program is designed to protect human health and the environment, and restore beneficial uses of natural resources in a cost-effective, efficient and compliant manner. The U.S. Environmental Protection Agency, the California Department of Toxic Substances Control and the Regional Water Quality Control Board all provide oversight of the Site 300 cleanup process. Site remediation will continue until cleanup standards agreed to by these federal and state environmental regulatory agencies are met.

DOE and LLNL periodically sponsor pub-



The Laboratory conducts extensive monitoring to assess the impact of operations on the environment.

lic workshops and meetings to share information and hear the concerns and priorities of the community. Notices and advertisements for these public forums are published in your local newspaper. ■

For more details on Site 300's environmental remediation activities, see the Website at: <http://www-envirinfo.llnl.gov/>

2007 Science on Saturday Lecture Series in the Central Valley



Science on Saturday is a series of free lectures and demonstrations targeted at middle and high school students. Presentations are aligned with California Science Standards. Topics are selected from the forefront of science and technology research in a variety of disciplines. The series will be offered at five locations in the Central Valley. The one-hour presentations will begin at 9:30 a.m.

The dates and locations this year will include:

- March 17: Delhi High School
- April 21: Buhach Colony High School, Atwater
- April 21: Enochs High School, Modesto*
- April 28: CSU Fresno
- May 19: Los Banos High School

* Two separate presentations will be offered on April 21.

For more information, contact Richard Farnsworth, LLNL Education Outreach Manager, Science and Technology Program at (925) 422-5059, or go to the Web at: www.llnl.gov/SOSvalley.html.

Upcoming Events

March 2: First date of the Site 300 Community Tours, to be held on the first and third Fridays of each month.

May: In preparation for the LLNL site annual burn to protect against wildfires, scheduled for June, the LLNL Site Annual Burn Plan is submitted to both San Joaquin Valley Air Pollution Control District and the Bay Area Air Quality Management District.

May 5: Got Science? Discover Science Saturday, a free, fun-filled family event highlighting science and technology, from 10 a.m. to 2 p.m. at Art Freiler Elementary School in Tracy.

June 1: Public meetings to be conducted by DOE in Tracy and in Livermore to determine preferred alternatives for the Complex 2030 process to consolidate work at national laboratories. Comments will be recorded on the Draft Supplemental Programmatic Environmental Impact Statement.

TAKE A TOUR!



SITE 300 • LAWRENCE LIVERMORE NATIONAL LABORATORY

Site 300 tour highlights include:

- » Environmental remediation facilities and wetlands,
- » View of the Contained Firing Facility,
- » Observation points for wildlife and surrounding properties.

Tours are held at 10 a.m. the first and third Fridays of each month, are free and open to visitors 18 and older.

Advance registration required. To sign up, visit the Public Affairs Website: <http://www.llnl.gov/pao/com/tours.html> or call (925) 422-4599.

Discover LLNL is a publication of the Public Affairs Office at Lawrence Livermore National Laboratory. If you would like to be included in the distribution of Discover LLNL, please contact Linda Lucchetti, lucchetti1@llnl.gov, or call (925) 422-5815.

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